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RECORD OF ORAL HEARING

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YOSHINARI MORIMOTO

Appeal 2008-3296
Application 10/625,778
Technology Center 2800

Oral Hearing Held: October 21, 2008

Before CHARLES F. WARREN, CATHERINE Q. TIMM, and
JEFFREY R. SMITH, Administrative Patent Judges

ON BEHALF OF THE APPELLANT:

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1 THE USHER: Calendar Number 3, Appeal Number 2008-3296. Mr.
2 Collier.

3 JUDGE WARREN: Good morning, Mr. Collier. As you
4 know, sir, you have 20 minutes. You may proceed when ready.

5 MR. COLLIER: Good morning, Your Honors. My name is
6 Jesse Collier. I'm representing the appellants in this case, and what I would
7 like to do is briefly summarize the invention and applied references and then
8 address the rejection.

9 With respect to the claimed invention, the features that I believe
10 that are at issue in this appeal are a plurality of test patterns that are printed
11 on a printed medium. The best pattern is determined with a sensor, and the
12 best pattern is reprinted on the same printing medium.

13 A good example of this is shown in figures 8 and 14 of our
14 application. Referring to either of those figures you can see, for example in
15 figure 8, that the test pattern is printed from a minus 12 to a plus 12 offset.
16 And then in this figure, the zero offset was the best pattern, so it is reprinted
17 on the bottom.

18 In the Takahashi reference, that reference discloses a two-step
19 process using a coarse adjustment and then a fine adjustment for
20 bidirectional printing registration. In the coarse adjustment, which is
21 discussed in column 38, line 36, to column 38, line 42. An interval between
22 one- and four-dot offset may be used.

23 In the fine adjustment, which is discussed just after the coarse
24 adjustment, the offset interval is as small as the quarter of one dot. In each
25 case -- in Takahashi, the patterns are analyzed by an optical sensor, thus the
26 measurements and adjustments are automatic without intervention by a user.

1 There is disclosure of a user-confirmation step in which only a
2 confirmation pattern for each of the coarse adjustment and the fine
3 adjustment are printed.

4 I would note that these confirmation patterns are different than
5 the patterns that are printed for use during the coarse and fine adjustment. If
6 you were to look at, for example, figure 17 of Takahashi, figure 17 shows an
7 example of the kind of test patches that are used for both the fine and coarse
8 adjustment in Takahashi.

9 And as you can see, these are very small patches that are going
10 to have different image density depending on how the dots overlap in the
11 various go-and-return printing directions.

12 And in the disclosure of the confirmation pattern, which is
13 mainly discussed in column 41, it discloses a printing -- a ruler-mark pattern,
14 et cetera, easy to be recognized by a user for the confirmation pattern.

15 This kind of ruler-mark pattern is the pattern that is discussed in
16 the background of the invention of Takahashi. And it is easy for a user to
17 distinguish dot offset with their eyes, but it is not very useful for the purpose
18 of the scanning method in Takahashi.

19 You know, as Takahashi discloses, the dot offsets are as fine as
20 a quarter of a dot. If you think about that in the context of a 600- or 1200-
21 dots-per-inch printing, it would be very difficult for a user to compare two
22 patterns that were offset by a quarter of a dot and make any distinction on
23 whether or not the patterns match.

24 JUDGE WARREN: And what claim limitation does this
25 pertain to, Counselor?

26 MR. COLLIER: This pertains to the final limitation in claim 1

1 and in claim 23, which recites that the best pattern printing instruction unit
2 causes the print unit to reprint the selected best test pattern. So in our
3 invention, we reprint the same test pattern that was used for the scanner in
4 determining the offset so that the user can compare the two.

5 If that were done in Takahashi, the resolution is so fine in those
6 various patches that are printed, it would be impossible for the user to
7 distinguish the offset in those images. And that is why it discloses -- uses
8 this different kind of image for the user confirmation.

9 JUDGE WARREN: But how does that -- how does your claim
10 cause distinguish over the reference? Couldn't your best pattern printing
11 instruction unit come up with the same result?

12 MR. COLLIER: No. When it arrives at -- when it determines
13 the best pattern with the scanner, it then reprints that best pattern on the
14 same page so that when the user can take a look at the page, there will be the
15 number of patterns that were used for the scanner to make the determination,
16 and then also reprinted the best test pattern that was discovered by the
17 scanner.

18 JUDGE WARREN: Now, does your printer do this in one
19 continuous loop or does it not print off the original selection until it
20 determines which of that range of prints is the best pattern?

21 MR. COLLIER: Well, in the disclosed embodiment, I think
22 figure 8 is a good example. So it chooses -- it determines various offsets.

23 JUDGE WARREN: So the user never sees the print patterns --
24 the patterns until your system selects the one that it considers best and then it
25 kicks out the whole sheet?

26 MR. COLLIER: Correct.

1 JUDGE WARREN: As opposed to printing it and printing
2 what it considers the best one?

3 MR. COLLIER: Correct. It is an important aspect of both the
4 claims that the test pattern is reprinted on the same page.

5 JUDGE WARREN: So the whole point of novelty here is
6 printing on the same page?

7 MR. COLLIER: Well, I think it highlights the difference
8 between the methods. You know, Takahashi can't reprint it on the same
9 page because it is using a different kind of patterns and the patterns that are
10 not easily recognized -- the distinctions are not easily recognized by a user
11 visually.

12 JUDGE WARREN: But I still don't understand where your
13 claim language -- which claim language you're referring to in trying to make
14 that distinction over the prior art.

15 MR. COLLIER: Well, that distinction is essentially -- it is
16 evident or it supports our reasoning for using -- for printing the best test
17 pattern again on the same page. That couldn't be done in Takahashi because
18 of the types of patterns that he uses.

19 JUDGE SMITH: Didn't you say that Takahashi includes an
20 optical scanner?

21 MR. COLLIER: Yes, it does.

22 JUDGE SMITH: But it takes the information that it scans to
23 print on a separate page?

24 MR. COLLIER: No. Takahashi uses -- it prints, for example,
25 those patterns that are shown in figure 17 of Takahashi, and then it scans
26 those with the image scanner to compare the density values.

1 JUDGE SMITH: Right.

2 MR. COLLIER: And based on those density values, it does
3 some calculations to determine which pattern has the ideal offset.

4 JUDGE SMITH: Okay. So after it has done all the
5 calculations, the distinction between your claimed invention and the
6 reference is the printing out of what this determination is on the same page?

7 MR. COLLIER: Well, the printing out of the determination --
8 what is printed out is different. We print out, again, the exact same test
9 pattern that was used by our scanner. Takahashi prints out a separate
10 confirmation image that is different than the one used by the scanner. And
11 ours is on the same page.

12 Moving on to the Michel reference. Michel discloses an
13 apparatus and method for printer calibration that is designed to avoid the use
14 of expensive measuring instruments.

15 The portion of the reference relied on relates to a method of
16 calibrating gray balance, which is an entirely different aspect than
17 bidirectional printing registration and really pertains to making sure that
18 gray values are consistent in the printer.

19 In that method, a gray balance page is printed. And an example
20 -- an example of that gray balance page is shown in figure 2.

21 The user evaluates the gray balance page and selects a row that
22 most closely matches the background gray area. If that row that the user
23 selected is not the middle row, the method in Michel prints out a new gray
24 balance page where the selected row is the middle row and the process is
25 repeated.

26 Once the user selects the middle row, that row is selected as the

1 best gray balance and the method moves on. Once the best gray balance is
2 determined, nothing is ever printed out again.

3 And even when -- during the iteration when the user selects
4 what they believe to be the best, it is reprinted out -- the next gray balance
5 page is reprinted on another page, so it is not printed on the same page.

6 So turning to the rejection, we've discussed a substantial part of
7 it with respect to the Takahashi reference. And in summary, Takahashi does
8 not disclose either reprinting the best test pattern or reprinting the best test
9 pattern on the same page. Michel also does not disclose this feature.

10 As I mentioned, the gray balance page is always printed out on
11 a new page. And the best gray balance pattern is actually never reprinted,
12 only the ones that are selected by the user in the process of the iteration.

13 The final rejection and advisory action made some arguments
14 for combining Takahashi and Michel, and I really think that the arguments
15 posed in both the office action and the advisory action don't really constitute
16 a good reason for combining the references.

17 The final rejection, for example, indicated that the two -- if you
18 did combine the two references, they would be combined for the purpose of
19 enabling errors to be readily detected and corrected by employing an
20 iterative process with coarse and fine iterations.

21 So essentially, I think the argument is that the iterative process
22 of Michel could be applied to Takahashi, but there is really no reason to do
23 that. I think it is clearly disclosed in Takahashi that the sensor in that
24 reference is capable of detecting dot offsets on the order of a quarter of a
25 dot, which is an incredibly fine resolution.

26 And there is really -- if that scanner can detect those kind of

1 offsets on the first try, there is no reason to use any offsets. And even if the
2 offsets were used, it wouldn't result in the best testing being printed on the
3 same page.

4 I would also briefly like to address an additional feature of
5 claim 23, and that is -- claim 23 also requires that the selected best pattern is
6 printed with its number of shift dots.

7 JUDGE TIMM: Did you argue that in your brief?

8 MR. COLLIER: It was argued in -- I believe it was argued in
9 the brief. I can identify exactly where the argument was raised. It was
10 actually raised in our pre-appeal brief request for review.

11 And the argument essentially goes like this: If you look at
12 figure 17 of Takahashi, only the test patches are printed. And the reason that
13 only the test patches are printed is because it is a scanner that is evaluating
14 the test patches.

15 The examiner pointed to figure 37 of Takahashi as allegedly
16 disclosing this feature, but figure 37 is a schematic diagram, and the labels
17 on there are for the purposes of the patent application. And there is no
18 indication that those labels are printed out in the test pattern.

19 And if you'll refer to figure 37. All of the text here is
20 essentially labeling for the purpose of the patent.

21 So certainly the -- for example, the -- indicating that the white
22 dot is offsetting or shift dot reverse scan recording is not going to be printed
23 by the device in Takahashi for the purpose of analyzing the test patches.
24 And what is actually printed as shown in figure 17 does not have that label.

25 That label is useful in our invention because it allows the user
26 to confirm that, in fact, the scanner did identify the correct pattern, and that

1 is -- if you look at, for example, figure 8 of our application, you can see that
2 having the 600, which indicates the resolution, and the zero, indicating the
3 number of offset dots, allows the user to compare that number to the test
4 patterns and determine which test pattern his scanner selected as the best.

5 And I think neither of the applied references disclose that
6 feature.

7 JUDGE WARREN: Any more questions?

8 JUDGE TIMM: No more questions.

9 JUDGE WARREN: Thank you very much, Counselor.

10 MR. COLLIER: Thank you.

11 JUDGE WARREN: Have a good day.

12 Whereupon, the proceedings at 10:16 a.m. were concluded.

13